

TRANSLATION OF INTERNATIONAL APPLICATION**CLAIMS**

1. The unit for the formation of nanostructures on semiconductor wafer surface incorporating a vacuum chamber equipped with exhaust and annealing systems, a
5 semiconductor wafer input device, a source of ions with controlled power, a mass separator, an electron gun, an electron detector, a wafer holder, and an ion current meter. The unit is equipped with an ion beam transport column, a quadrupole mass analyzer, an optical microscope, and a computer, the axes of the ion beam transport
10 column, the optical microscope and the electron gun being situated on the same plane with the normal to the semiconductor wafer in the working position, and intersecting in one point located on the front surface of the wafer; the ion beam transport column, the optical microscope and the electron gun being situated on the front side of the wafer, and the angle between their axes is the minimum one; the computer scans the ion beam through a set of sites by moving the wafer along the given site coordinates, and
15 displays images of the wafer surface in secondary electrons, and provides for combining ion and electron beam solutions on the surface of the wafer.

2. The unit of Paragraph 1, differing in that its vacuum chamber achieves a vacuum of 5×10^{-10} torr.

3. The unit of Paragraph 1, differing in that the ion beam diameter can vary
20 from 0.9 μm to 1.5 μm , with an ion energy value of 5 keV.